

A NEW EMPIS OF THE SUBGENUS PACHYMERIA
(Diptera, Empididae)

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In *Genera Insectorum*, fasc. 185, Melander lists four nearctic species of *Empis* referable to the subgenus *Pachymeria*.

The subgenus may be characterized as follows. Short, robust, blackish-gray species; eyes of female broadly, those of male narrowly separated (contiguous in male *johnsoni*) and with small uniform facets; face broad; humeral, propleural, and metapleural bristles not unusually strong; dorsocentrals and acrosticals biserial or multiserial; legs short, robust, the hind femora more or less thickened; legs in both sexes not ciliated with flattened scales; fourth vein reaching wing margin; anal angle of wing not obtuse, more or less rectangular; abdomen short, broad, its segments without strong dorsal bristles.

The known nearctic species may be separated by the following key:

KEY TO THE SPECIES OF PACHYMERIA

1. Hind femora no longer than middle ones; male dichoptic.....2
- . Hind femora one-third to one-half longer than middle ones....3
2. Abdomen wholly shining black.....*brevis* Loew
- . Abdomen with distinct white pollinose markings, especially toward apex.....*pudica* Loew
3. Abdomen with pile, except on first segment, largely or wholly pale and with distinct grayish pollinose areas on all segments.
.....*montiradicis* James, n. sp.
- . Abdomen wholly black—pilose and shining or with greatly reduced pollinose markings.....4
4. Antennal style one-third as long as third segment; male dichoptic*otiosa* Coq.
- . Antennal style one-half as long as third segment; male holoptic*johnsoni* Mel.

Empis (*Pachymeria*) *montiradicis* James, new species

Male. Head black, wholly dusted with grayish pollen except on oral margin, which is shining. Eyes in front of ocelli separated by approximately distance between paired ocelli; front broadening gradually above, suddenly below; face about three times width of narrowest part of front. Total length of antennae two-thirds height of head; length of first two segments combined a little less than width of face; ratio of three segments and arista 5:4:16:6; third segment lanceolate, two and a half times as long as its maximum width; antennae dull black, basal segments with

black pile. Bristles of vertex and occiput black; about twenty-five infraorbitals; numerous occipitals, not arranged in rows; pile long, yellow, sparse, more abundant below. Head as wide as high, slightly higher than long; proboscis almost twice height of head, yellow, base and sheath blackish, palpi and labella lemon-yellow; palpi with a few long black hairs in front. Thorax black, almost wholly covered with dense grayish pollen; mesonotum with four brown vittae, middle pair (between dorso-centrals and acrosticals) reaching approximately from suture almost to anterior margin, outer pair (outside dorso-centrals) greatly abbreviated in front but sometimes extending beyond suture; propleurals and meta-pleurals black, pleural sclerites of mesothorax bare; bristles and hairs of pronotum, mesonotum and scutellum black; four scutellars. Legs short; all femora thickened, one-fifth to one-fourth longer than their tibiae; front and middle femora of equal length, hind ones half again as long. Front femora brown to black, except at base and apex; middle and hind ones yellow to brown, paler above and behind; tibiae and tarsi yellow, hairs and bristles black. Wings hyaline; veins yellow; R_{2+3} slightly sinuate. Abdomen black, with grayish pollen; segment one with coarse black pile laterally; pile of other segments finer, usually yellow, often more or less black, longest on segment two; segment one with pilose areas shining; two to four shining except laterally and more or less at base, especially on the more posterior segments; five, six and all of venter pollinose. Venter without protuberances. Hypopygium short, appearing somewhat angular below; upper lamellae as long as hypopygium, twice as long as wide, elliptical, finely pubescent; aedeagus short, thick, flattened on basal half, when exerted, directed dorsally and forward to about apex of segment six, strongly contracted and recurved at tip; genitalia variably yellow to brown. Length, 6 mm.

Female. Similar except sexually. Front as wide as ocellar triangle; occipitals less abundant; pile and bristles of thorax and abdomen shorter; genitalia shining black.

Holotype, male, BOULDER, COLO., May 5, 1934 (James); author's collection. Allotopotype, female, BOULDER, COLO., May 25, 1933 (James). Paratopotypes, 27 males, 14 females, BOULDER, COLO., May 22, 1932 (James), May 28, 1933 (James), May 5 and 12, 1934 (James), May 25, 1938 (James), May 14, 1939 (Lanham). Paratypes: 2 males, 1 female, VALMONT, COLO., April 29, 1934 (M. and H. James); 10 males, 5 miles north of BOULDER, COLO., May 9, 1939 (Rodeck and Lanham); 2 males, 4 miles northwest of HYGIENE, COLO., May 15, 1937 (Lanham); 1 male, COLO. 2091, Foothills 6 miles west of FT. COLLINS, May 4, 1896 (Gillette); 5 males, 2 females, COLO., 1853, HORSETOOTH GULCH, April 23, 1895 (Gillette).